

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Authorizing Permissive Use of the)	GN Docket No. 16-142
“Next Generation” Broadcast)	
Television Standard)	

To: The Commission

**REPLY COMMENTS OF
CONSUMERS UNION
OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA
and PUBLIC KNOWLEDGE**

Consumers Union, the Open Technology Institute at New America and Public Knowledge (“Public Interest Organizations” or “PIOs”) hereby submit the following Reply Comments to the ATSC 3.0 Further Notice of Proposed Rulemaking.¹ The record demonstrates that a broad and diverse range of industry associations, companies and consumer advocates strongly oppose the premature, legally questionable, unnecessary, and ultimately counterproductive proposal by Sinclair’s ONE Media that some select group of local broadcast licensees should be granted a free additional channel of spectrum to compete with mobile carriers in providing new, mostly fee-based mobile video services. Doubling a station’s free spectrum assignment may hasten the rollout of certain fee-based “Next Gen TV” offerings that compete with mobile carriers and other ISPs, but it is not necessary at this time to protect consumers and it comes at a high cost, as rural broadband providers, Wi-Fi innovators, wireless microphone makers, cable MVPDs, and other stakeholders described in their comments.

¹ *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Report and Order and Further Notice of Proposed Rulemaking, GN Docket No. 17-158, 32 Rcd. at 9930 (2017) (“*Further Notice*” or “*FNPRM*”).

I. THE RECORD SHOWS STRONG OPPOSITION TO THE VACANT CHANNEL PROPOSAL

Parties representing a broad range of industries and stakeholders joined our groups in strenuously opposing the spectrum giveaway proposed by ONE Media.² The record demonstrates that in addition to consumer advocates, parties representing the cable industry (NCTA—The Internet & Television Association), global internet companies (Dynamic Spectrum Alliance), wireless microphone OEMs (Shure, Sennheiser), Wi-Fi innovators (Wi-Fi Alliance), and school and rural broadband providers and innovators (Microsoft), all strongly oppose the premature, legally questionable, unnecessary, and ultimately counterproductive suggestion that some select group of local broadcast licensees should be granted a free additional channel of spectrum to compete with mobile carriers in providing new, mostly fee-based mobile video services.

As an initial matter, the Public Interest Organizations (“PIOs”) wish to reiterate that any determination that local broadcast licensees should be granted either “temporary” or permanent exclusive use of a second six megahertz channel is at best premature.³ ONE Media’s proposed spectrum giveaway has nothing whatsoever to do with continued transmission of the ATSC 1.0 primary programming stream to viewers. For at least the next five years, no viewers will lose their current DTV service (ATSC 1.0). The Commission’s Order requires local broadcast licensees to fulfill their most basic public interest obligation and continue to broadcast their

² Microsoft Comments at 2-14; Wi-Fi Alliance Comments at 3-8; Dynamic Spectrum Alliance Comments at 4-7; NCTA Comments at 6-7; Shure Incorporated Comments at 2-10; Sennheiser Electronic Corp. Comments at 2-4. References to comments relate to the above-referenced *FNPRM* unless noted otherwise.

³ DSA Comments at 6 (“The transition from analog to digital television was required by law, and despite several delays, the transition from analog to digital television for full-service stations had an end date. Here, the transition from ATSC 1.0 to ATSC 3.0 for full-service stations is voluntary and currently does not have an end date. The Commission intends to address the question of when it would be appropriate to eliminate the simulcast requirement at some later time. Until then, for all intents and purposes, these so-called dedicated transition channels will serve effectively as a permanent second channel.”).

current primary DTV programming stream in at least standard definition *whether or not* they voluntarily choose to experiment with ancillary ATSC 3.0 offerings.

Doubling a station's free spectrum assignment may hasten the rollout of certain fee-based "Next Gen TV" offerings that compete with mobile carriers and other ISPs, but it is not necessary at this time to protect consumers and it comes at a high cost, as Wi-Fi, rural broadband and wireless microphone interests described in their comments.⁴ The Wi-Fi Alliance correctly noted that even the *NPRM* acknowledged that many proposed uses of ATSC 3.0 would not relate to broadcasting, as the Commission recognized that many potential new offerings should be categorized as "ancillary" for purposes of its rules.⁵ Microsoft and NCTA both note that the vacant channel proposal would impose high costs on other parties as well – most notably pay TV consumers and Americans living in rural and other areas suffering a broadband access gap.⁶

Further, the spectrum giveaway proposal put forward by ONE Media contradicts and undermines the framework adopted by the Commission in its Order last November. The Commission's framework, premised on voluntary channel-sharing arrangements, promotes spectrum efficiency by giving local stations an incentive to partner and use two (or more) channels more intensively during an initial five-year experimental period. In contrast, offering stations exclusive use of a second free channel would promote an inefficient use of the resource,

⁴ Microsoft Comments at 7; Wi-Fi Alliance Comments at 7-8 ("But at least some of the motivation behind ATSC 3.0 is its potential to allow broadcasters to use spectrum for mobile data connections. The use of this spectrum for "datacasting" and other Over The Air ("OTA") data solutions are a core component of ATSC 3.0 proposals, as reflected in broadcasters' submissions in this proceeding, and in other promotional materials for the new standard."); Shure Comments at 4 ("If adopted, the proposal will significantly reduce the relatively small amount of UHF spectrum still available for wireless microphone operations, jeopardizing existing and future operations in this sector.").

⁵ Wi-Fi Alliance Comments at 8.

⁶ Microsoft Comments at 7; NCTA Comments at 6-7 ("Additionally, allowing 'temporary' use of a vacant channel instead of sharing currently used broadcast channels could impose new, unreimbursed costs on cable operators in order to continue carrying a broadcaster's ATSC 1.0 signal.").

even as it severely disrupts other users in the band such as low power TV⁷ and unlicensed uses, including wireless microphones.⁸ As Shure argues: “In light of the 600 MHz transition currently underway, in which thousands of wireless microphones are being discarded and replaced by equipment that operates in the remaining TV band, foreclosing wireless microphones from remaining vacant channels below 608 MHz would thus be catastrophic.”⁹

If TV stations believe they can both avoid channel sharing *and squat on a second free channel of spectrum*, they will race to do so with claims that channel sharing is not feasible for them. Even stations that today have no interest in ATSC 3.0 would suddenly be foolish not to enter the lottery (or beauty contest) for an additional free 6 megahertz of spectrum worth potentially tens or even hundreds of millions of dollars in the largest metro markets.

Moreover, despite ONE Media’s claim this gift could be “temporary,” it will trigger a lobbying frenzy to make the giveaway permanent. As the Dynamic Spectrum Alliance rightly states, until the Commission addresses the question of if and when it will be appropriate to eliminate the simulcast requirement, “for all intents and purposes, these so-called dedicated transition channels will serve effectively as a permanent second channel.”¹⁰

II. THE RECORD DEMONSTRATES SECTION 309(j) OF THE COMMUNICATIONS ACT PROHIBITS THE VACANT CHANNEL PROPOSAL

The proposal to give away vacant channels to broadcasters for the transition to ATSC 3.0 is prohibited by Section 309(j) of the Communications Act, which requires an auction for assignments that would certainly attract mutually competing applications. Calling the assignment

⁷ Microsoft Comments at 8-11; DSA Comments at 7.

⁸ See, *generally* Shure Comments; Sennheiser Comments; Wi-Fi Alliance Comments; Microsoft Comments; DSA Comments.

⁹ Shure Comments at 5.

¹⁰ DSA Comments at 7 (“Such action by the Commission would unduly expands broadcasters’ exclusive use spectrum holdings for free.”).

of a free license “temporary” does nothing to alter this statutory provision, particularly here where the initial five-year experimental period established in the *Report & Order* would mark the beginning, not the end, of a still-hypothetical transition. As Microsoft explained: “Neither the Act nor Commission rules provide an exception to this requirement for putatively ‘temporary’ authorizations with either no end date at all, or end dates years into the future.”¹¹

Even broadcast TV interests supporting free access to a second channel, such as Pearl TV and Meredith Corp., acknowledge that a STA for six or possibly 12 months is the longest period the Commission can legally justify.¹² Pearl TV stated in its comments: “Under the Communications Act, the FCC may only grant STA for a period of up to 180 days, and may only extend such grant for additional periods of up to 180 days, and then only upon the applicant’s showing that extraordinary circumstances warrant such an extension.”¹³ Meanwhile, broadcasters’ desire to scoop up vacant channels for the ATSC 3.0 transition—despite having told the Commission numerous times when petitioning to begin this rulemaking that no additional spectrum would be necessary for the transition—would most certainly fail to meet the definition of an “extraordinary circumstances.”¹⁴

In fact, the major broadcast entities pushing for this proposal (ONE Media and NAB) failed to address the issue of Section 309(j) and the legality of this spectrum giveaway in their comments. These commenters instead attempted to equate this transition to the Digital TV (DTV) transition, where Congress gave broadcasters access to a second channel to facilitate the

¹¹ Microsoft Comments at 2-3.

¹² Pearl TV Comments at 4; Meredith Corporation at 2.

¹³ Pearl TV Comments at 4. *Accord* Microsoft Comments at 2-3 (“Although the Act provides a narrow exception to certain statutory licensing rules for ‘temporary authorizations,’ the Act makes clear that these temporary authorizations require a finding of ‘extraordinary circumstances’ and may not exceed 180 days”).

¹⁴ OTI and PK Comments at 4-9.

move.¹⁵ However, the Commission’s authorization of a voluntary, five-year experiment with ATSC 3.0 is not comparable to a mandatory and Congressionally-authorized DTV transition, as several commenters note.¹⁶ As DSA explained: “The transition from analog to digital television was required by law, and despite several delays, the transition from analog to digital television for full-service stations had an end date. Here, the transition from ATSC 1.0 to ATSC 3.0 for full-service stations is voluntary and currently does not have an end date.”¹⁷

Further, even after the voluntary five-year period established in the *Report & Order* – and even if the Commission decides years from now that a mandatory transition serves the public interest – the DTV transition suggests most stations are highly likely to take more than 180 days to transition. As Microsoft notes, the analog-to-digital transition that “began in 1996 with the Commission’s adoption of the ATSC 1.0 standard, did not formally end for full-service stations until 2009, 13 years later” despite the fact the transition was mandated by statute and “included a converter-box program which artificially accelerated consumer adoption of compatible equipment.”¹⁸

Given that the ATSC 3.0 transition is not mandated by Congress, nor has a deadline, using the DTV transition as a precedent rings hollow in defending the proposed vacant channel giveaway to broadcasters that Section 309(j) expressly prohibits. While it is conceivable that the benefits evidenced during the initial five-year experimentation period could persuade the Commission that vacant channels have a role to play in protecting consumers, there is certainly no basis now for authorizing any applications for a 180-day grant of free additional spectrum.

¹⁵ NAB Comments at 5; OneMedia Comments at 6.

¹⁶ DSA Comments; Microsoft Comments.

¹⁷ DSA Comments at 6.

¹⁸ Microsoft Comments at 3-4 (emphasis in original).

III. THE RECORD SHOWS THE VACANT CHANNEL GIVEAWAY WOULD INCUR SUBSTANTIAL DAMAGE ON THE PUBLIC INTEREST

While the public interest benefits of ATSC 3.0 and the offerings that potentially come with it remain hypothetical, the record documents the substantial damage to the public interest that would result from allowing broadcast incumbents to divide up and wall off the remaining vacant TV channel spectrum. Ongoing efforts to bridge the digital divide in rural areas through TV White Space innovation, Low Power Television stations, and the wireless microphone industries would all be harmed by the Commission's proposal.

Giving away the vacant channel frequencies to broadcasters, thereby foreclosing the ongoing investment and innovation to leverage TV White Space to extend affordable broadband in rural areas, would greatly harm Americans living in underserved and unserved regions of the country. OTI and PK's comments detailed many of the projects using vacant channels to bring broadband to rural Americans,¹⁹ as did Microsoft.²⁰ "White Spaces technologies are uniquely valuable for rural broadband deployment because they enable a compelling solution to the central technical and economic challenges of bringing service to areas with low population densities," Microsoft noted in its comments. "Investment in a single White Spaces radio and its associated physical infrastructure can enable high-speed internet connectivity to homes and businesses across a wide area that would otherwise be unserved,"²¹

If the Commission grants broadcasters the exclusive use of TVWS channels for a still-undefined ATSC 3.0 transition, our groups strongly agree with Microsoft that this will mark a

¹⁹ OTI and PK Comments at 9-12.

²⁰ Microsoft Comments at 11-13 ("As Congress and the Commission have recognized, White Spaces channels are important enablers of rural broadband internet access. Repurposing these channels to indefinitely transmit duplicated programming as part of a broadcaster's voluntary decision to transition to ATSC 3.0 would make the difficult job of connecting rural communities even harder.").

²¹ *Id.* at 11-12.

“serious blow to rural broadband deployment and innovation.”²² As DSA argues: “If the Commission goes forward with ONE Media’s proposal, DSA expects there will be a significant reduction in the amount of white spaces available in these areas for use by unlicensed devices that can provide affordable broadband service to less densely populated areas of the country.”²³

Meanwhile, with the uncertainty surrounding the TV Incentive Auction finally lifting, rural deployments leveraging TV White Space (TVWS) channels are increasing as a means of bridging the digital divide. For example, the association of unlicensed TVWS operators, Connect Americans Now, now has more than 100 members.²⁴ The benefits of TV White Spaces to rural connectivity are far less hypothetical than the public interest that may or may not result from a voluntary ATSC 3.0 transition. Microsoft recently announced its intent to use TV White Spaces to connect broadband to school buses in Hillman, Mich., a town of about 700 people, as a means of mitigating the “homework gap.” Hillman marks Microsoft’s eighth pilot for TV White Spaces in the past eight months.²⁵ Roughly 70 percent of teachers nationwide report that they assign homework that requires internet access to complete.²⁶ Similar Wi-Fi enabled buses, such as in Coachella, Calif., and Huntsville, Ala., are places students currently rely on to complete their homework and study.²⁷

As another example, Microsoft launched an initiative with the Mid-Atlantic Broadband Communities Corp. to deliver broadband to the homes of thousands of students in Southern

²² *Id.* at 12.

²³ DSA Comments at 7.

²⁴ *Connect Americans Now Reaches 100 Members*, Connect Americans Now (March 15, 2018), <https://connectamericansnow.com/connect-americans-now-reaches-100-members/>.

²⁵ Brian Fung, “To get rural kids online, Microsoft wants to put Internet access on school buses,” *The Washington Post* (March 8, 2018), https://www.washingtonpost.com/news/innovations/wp/2018/03/08/to-get-rural-kids-online-microsoft-wants-to-put-internet-access-on-school-buses/?utm_term=.f5a5ef5f930d.

²⁶ Sean Cavanagh, “Students’ Lack of Home Internet Access Becomes Priority for District Tech Leaders,” *Education Week*, Market Brief (Feb. 19, 2016), <https://marketbrief.edweek.org/marketplace-k-12/lack-of-out-of-school-web-connections-major-focus-of-district-tech-leaders/>.

²⁷ Cecilia Kang, “Bridging a Digital Divide That Leaves Schoolchildren Behind,” *The New York Times* (Feb. 22, 2016), <https://www.nytimes.com/2016/02/23/technology/fcc-internet-access-school.html>.

Virginia using TV White Spaces, in counties where about 50 percent of students currently lack access at home.²⁸ As the Wi-Fi Alliance notes, TV White Spaces hold “immense potential for a number of important applications, including the Internet of Things and the provision of fixed broadband to rural Americans – an important tool in closing the Digital Divide.”²⁹

The proposed vacant channel proposal would also harm the wireless microphone industry, as Shure and Sennheiser argue.³⁰ Shure explains how available spectrum has been reduced over the years that makes it “increasingly likely” that there will not be adequate wireless microphone support for larger-scale productions in the near future absent affirmative action from the Commission to preserve a reasonable amount of UHF spectrum.³¹ Shure deems the proposal to give unassigned TV channels for broadcasters’ use as transition channels “untenable,” and notes that if the proposal is adopted, it “will significantly reduce the relatively small amount of UHF spectrum still available for wireless microphone operations, jeopardizing existing and future operations in this sector.”³² Sennheiser notes how important the spectrum for wireless microphones is for content creation as well: “Many wireless mics can operate outside the UHF TV spectrum, but hyper-critical situations demand and deserve the propagation characteristics that only UHF can provide. This is vital for professional audio engineers: when millions are

²⁸ “Mid-Atlantic Broadband Communities and Microsoft launch new Homework Network to bring thousands of students online in rural Virginia,” Microsoft News Center (May 23, 2017), <https://news.microsoft.com/2017/05/23/mid-atlantic-broadband-communities-and-microsoft-launch-new-homework-network-to-bring-thousands-of-students-online-in-rural-virginia/>.

²⁹ Wi-Fi Alliance Comments at 5.

³⁰ Shure Comments at 8 (“The Vacant Channel Proposal disrupts years of difficult public proceedings carefully balancing competing needs of services that operate within or adjacent to the TV band, including Public and Private Mobile Services, Broadcast Auxiliary Services, licensed low power auxiliary stations, as well as unlicensed wireless microphones and unlicensed TV white space devices. It is not acceptable for the Commission to radically alter the regulatory scheme in such a way as to fundamentally undermine wireless microphone designs and deployments and, in turn, disrupt the many sectors that rely on them.”)

³¹ Shure Comments at 3-4.

³² *Id.* at 4.

watching live, there is no chance for a second take.”³³ The record shows that giving away this spectrum would greatly damage the operations of wireless microphones.

Low-Power Television Stations would likely be displaced by a vacant channel giveaway as well. As Microsoft writes: “Because low-power broadcasters were not eligible to participate in the Incentive Auction, and are not protected during the post-auction repack, many low-power broadcasters will need to move to new channels after the repack to avoid interference to or from relocated full-power and Class A broadcasters. There are likely to be cases where no such channels are available”³⁴

IV. THE ADDITIONAL SPECTRUM IS UNNECESSARY AND ALLOWS BROADCAST LICENSEES TO IMPOSE COSTS ON CONSUMERS AND OTHER PARTIES

As many parties point out, the record shows that the broadcasting industry itself has stated repeatedly that additional spectrum is completely unnecessary to complete the transition to ATSC 3.0.³⁵ But necessary or not, awarding local stations additional free spectrum is likely to impose “new, unreimbursed costs” on cable operators seeking to continue carrying a broadcaster’s ATSC 1.0 signal³⁶ -- costs our groups believe will ultimately be passed along to consumers. If the broadcaster’s 1.0 signal is transferred to a transmitter other than one that is already transmitting a broadcast signal being carried by the cable system, the cable operator would need to purchase and install new receiving equipment.³⁷

Our groups concur with NCTA’s view that “[T]here are sure to be costs and complications associated with the voluntary experimental deployment of a new transmission standard that is incompatible with the existing standard. But broadcasters gave assurances that

³³ Sennheiser Comments at 4.

³⁴ Microsoft Comments at 9.

³⁵ DSA Comments at 4; Sennheiser Comments at 2-3; NCTA Comments at 6; Wi-Fi Alliance at 7; Microsoft Comments at 4-8.

³⁶ NCTA Comments at 6.

³⁷ *Ibid.*

they could undertake this project without asking for additional spectrum and without asking the government, cable operators and consumers to share the burdens or subsidize the costs. Having authorized the experiment, the Commission should hold the broadcasters to their promises.”³⁸

Microsoft similarly notes: “The only purpose that the simulcast-spectrum proposal will likely serve in practice will be to reduce the price that the average broadcaster must pay in order to exclusively secure spectrum for its ATSC 1.0 simulcast—*perhaps reducing their cost to zero through a government spectrum subsidy in the form of a free exclusive channel, externalizing the costs of this transition onto other users in the band.*”³⁹

V. Conclusion

The Commission should abandon its proposal to give broadcasters either temporary or permanent access to vacant channels to facilitate their commercial interests in an ATSC 3.0 transition. Enacting such a proposal would likely violate the Communications Act, would harm the public interest, would damage efforts to bridge the digital divide, and would incur costs on other players in the industry to bankroll the broadcasters’ move.

Respectfully submitted,

/s/ Jonathan Schwantes

Senior Policy Counsel
Consumers Union
1101 17th Street NW
Suite 500
Washington, D.C. 20036

/s/ Harold Feld

Phillip Berenbroick
Public Knowledge
1818 N Street NW
Suite 410
Washington, D.C. 20036

/s/Michael Calabrese

Amir Nasr
Open Technology Institute
740 15th Street NW,
Suite 900
Washington, D.C. 20005

March 20, 2018

³⁸ *Id.* at 7.

³⁹ Microsoft Comments at 7 (emphasis in original). “To the extent that this accelerates the voluntary ATSC 3.0 transition, this is only because this subsidy would stimulate supply of ATSC 3.0 service even in the absence of enough market demand to support it without government assistance. And, unlike non-exclusive White Spaces operations that must share spectrum with all comers, granting broadcasters special rights to devote entire channels to ATSC 1.0 simulcasts would also allow them to exclude all other users from that channel.” *Ibid.*